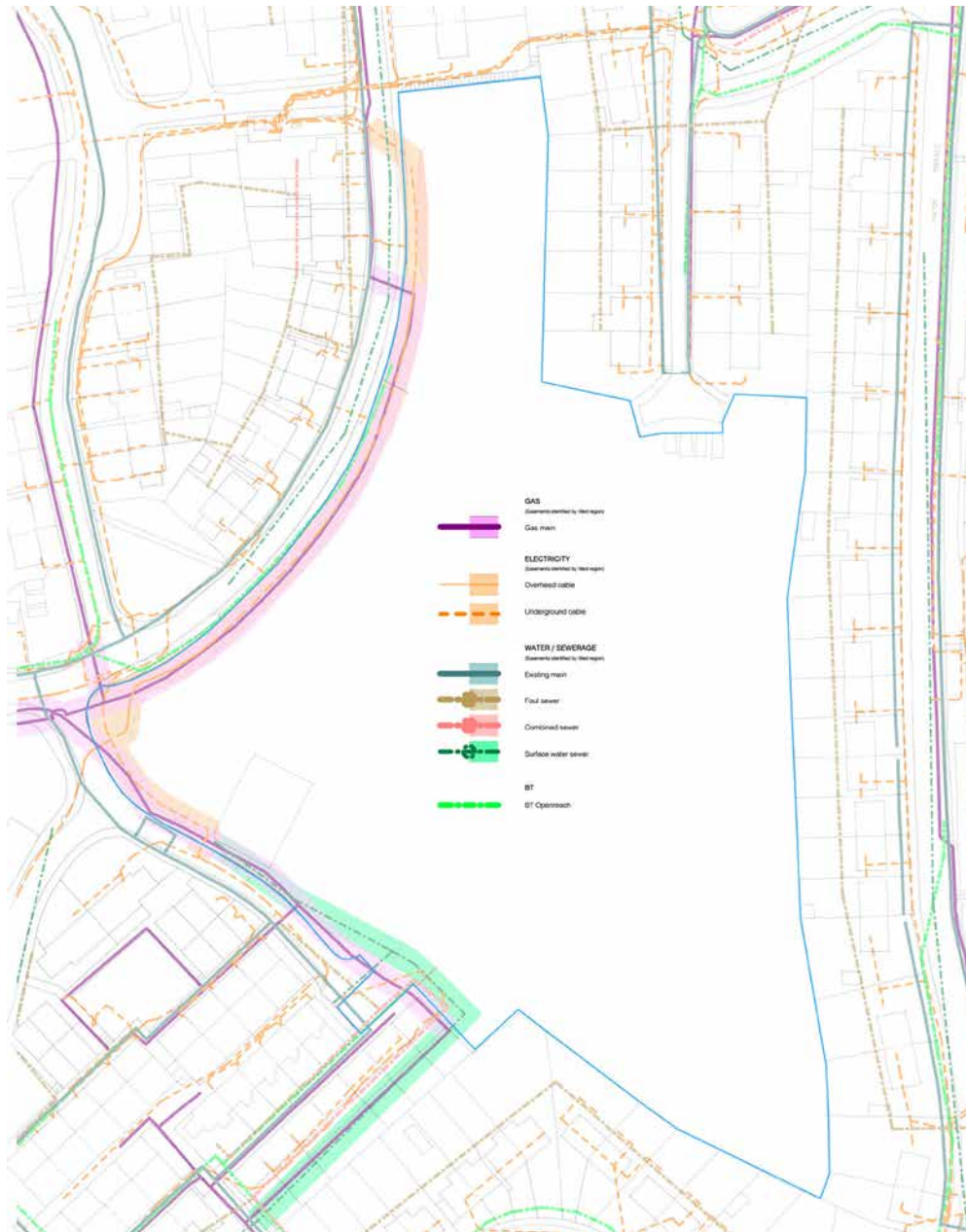
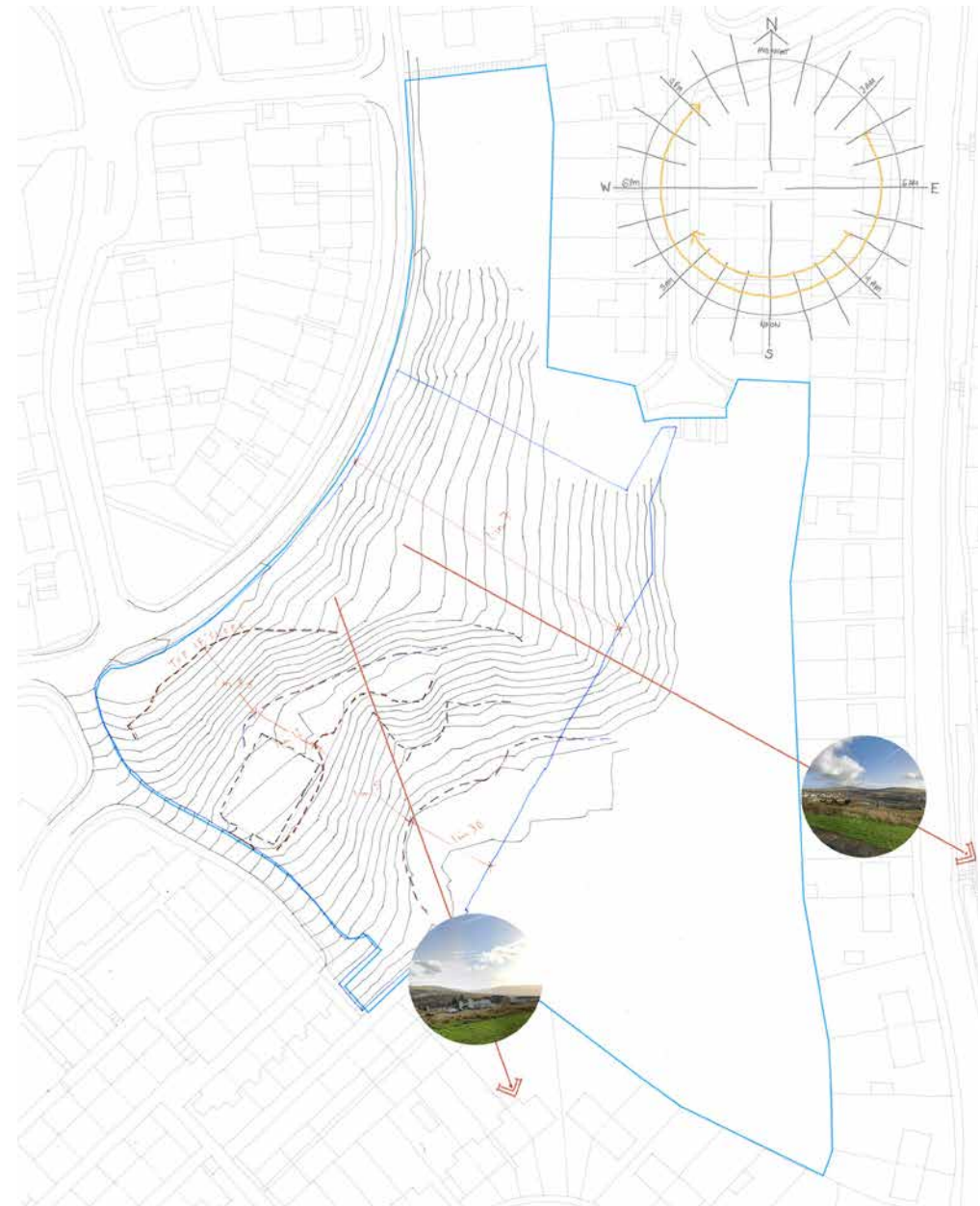


2.12 Site Analysis Diagrams

Existing Services

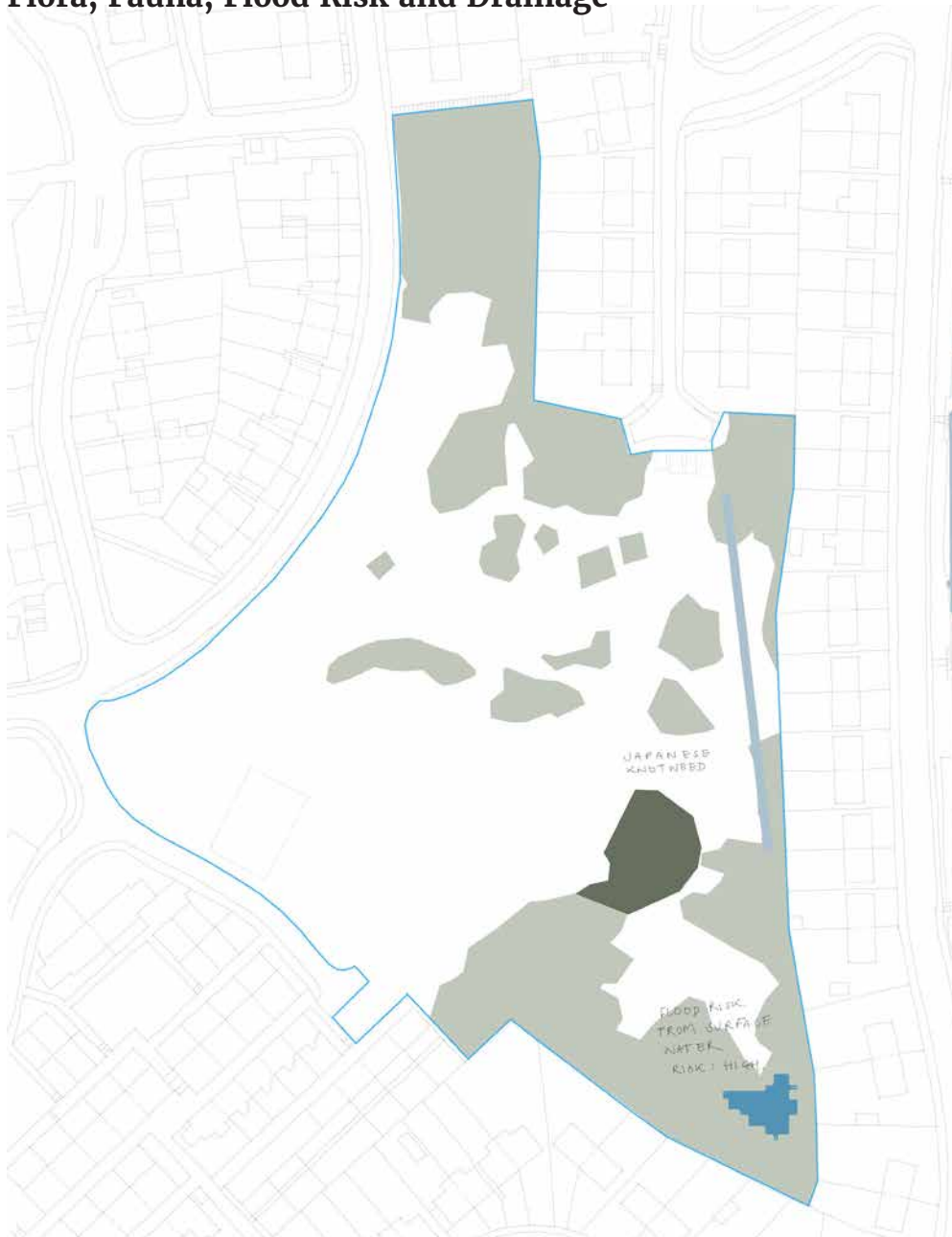


Topography, Orientation and Views

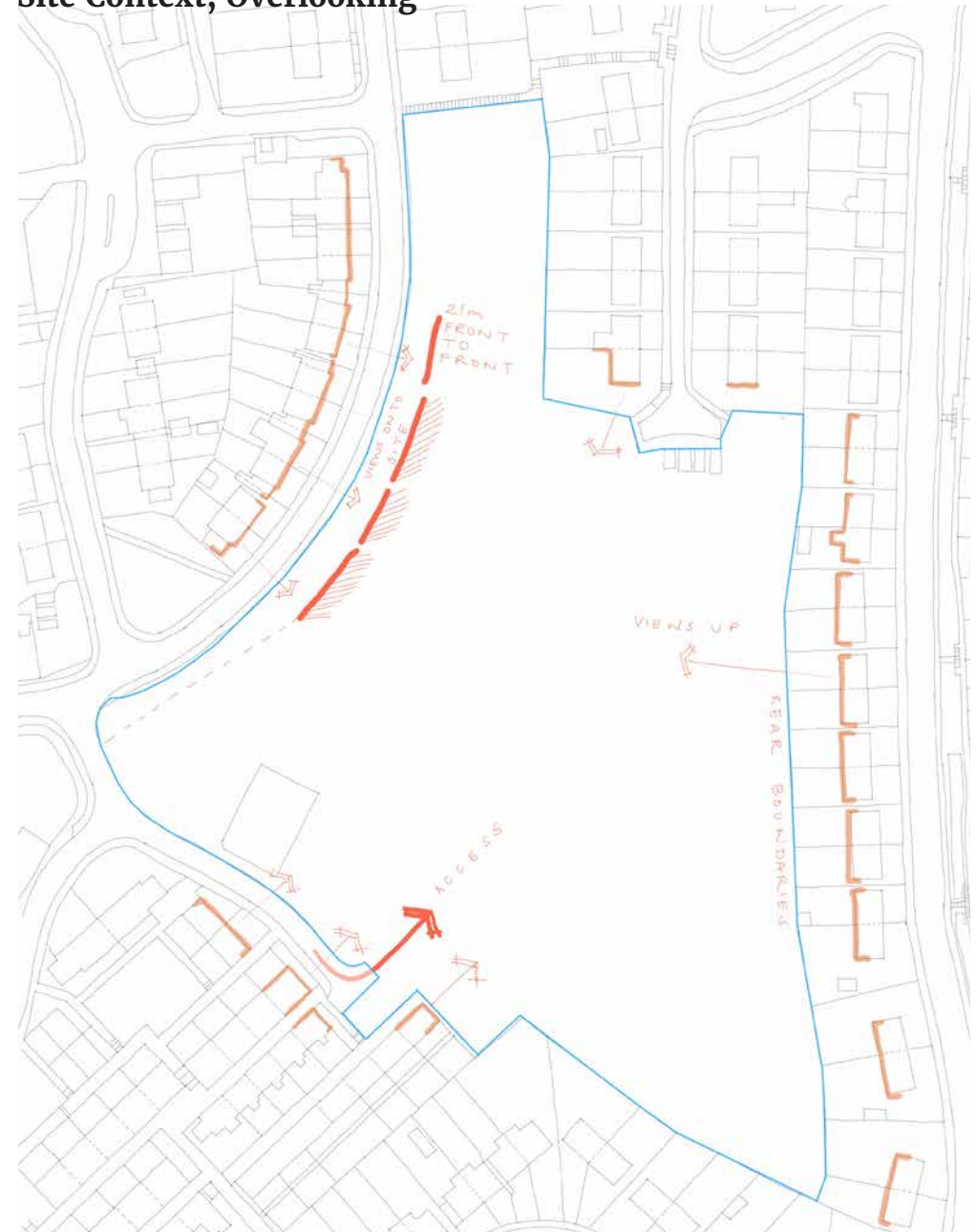


2.13 Site Analysis Diagrams

Flora, Fauna, Flood Risk and Drainage



Site Context, Overlooking



2.14 SWOT Analysis- Strengths and Opportunities

The diagram on the right provides the 'one-page' summary of the key constraints and opportunities on the site as provided to WG as part of the technical scrutiny process.

Housing Need: "Home has never been so important for MTHA and our tenants. We need to develop more homes than ever before, but we need to consider the impact of the climate emergency and changes in housing supply and demand on the development, design and construction of new homes." Lee Roberts, MTHA

Site Context: The proposal should engage with the Hillcrest estate, not turn its back on it. There are opportunities to increase connectivity, and also make use of the natural surveillance provided by the existing houses and bunaglows that overlook the site.

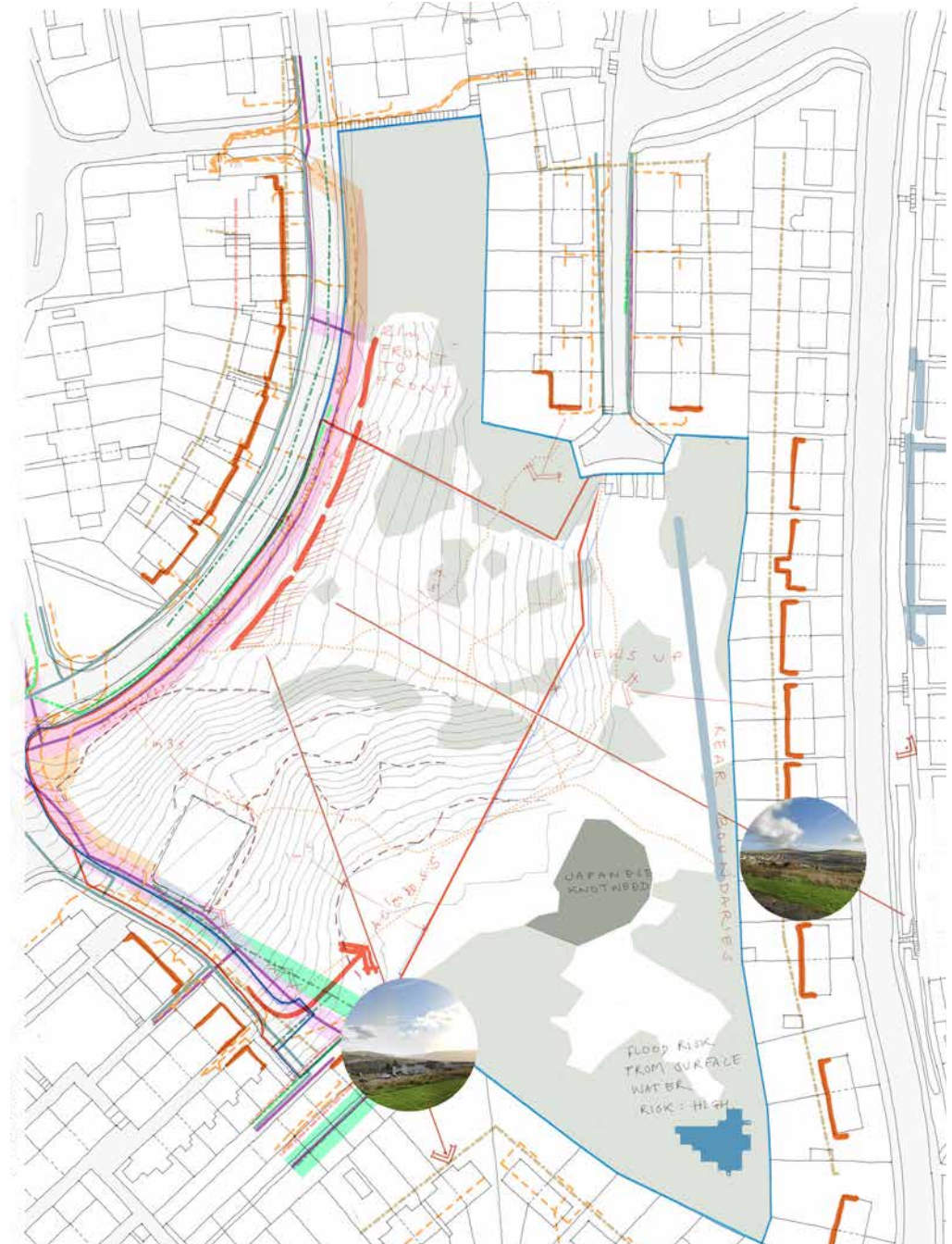
Connectivity: Opportunity to connect to all three neighbourhoods, and hopefully improve the sense of community that is evident. However to do so it needs to be made permeable and connected in a way that enables people to negotiate the challenging change of levels across the site (over 12metres from top to bottom).

Access: There is also an opportunity to connect a walking route into Marshall Terrace, which has terminated with a hammerhead on the northern boundary of the park since 1960. This would improve the permeability of the area as a whole.

Topography: Sloping sites provide opportunities for views and visual links to the wider landscape. The site slopes to the south, affording good solar access and reducing overshadowing.

Access: There are no formal paths across the site, but it is used informally in an uncontrolled way. At the top of the site, the highway runs up to the westerly edge of site, and surrounding dwellings enjoy views and sunlight from the south-east. To the north and east edges of the site, the boundary is mostly comprised of private rear gardens that back onto Hillside Park (note that the scheme as proposed does not run up to these private boundaries, but retains open parkland).

Crime Rates, Secure by Design: Opportunity to create beautiful and safe homes and spaces for the new residents, integrating with the wider community and designing out crime through good design.



2.15 SWOT Analysis- Strengths and Opportunities

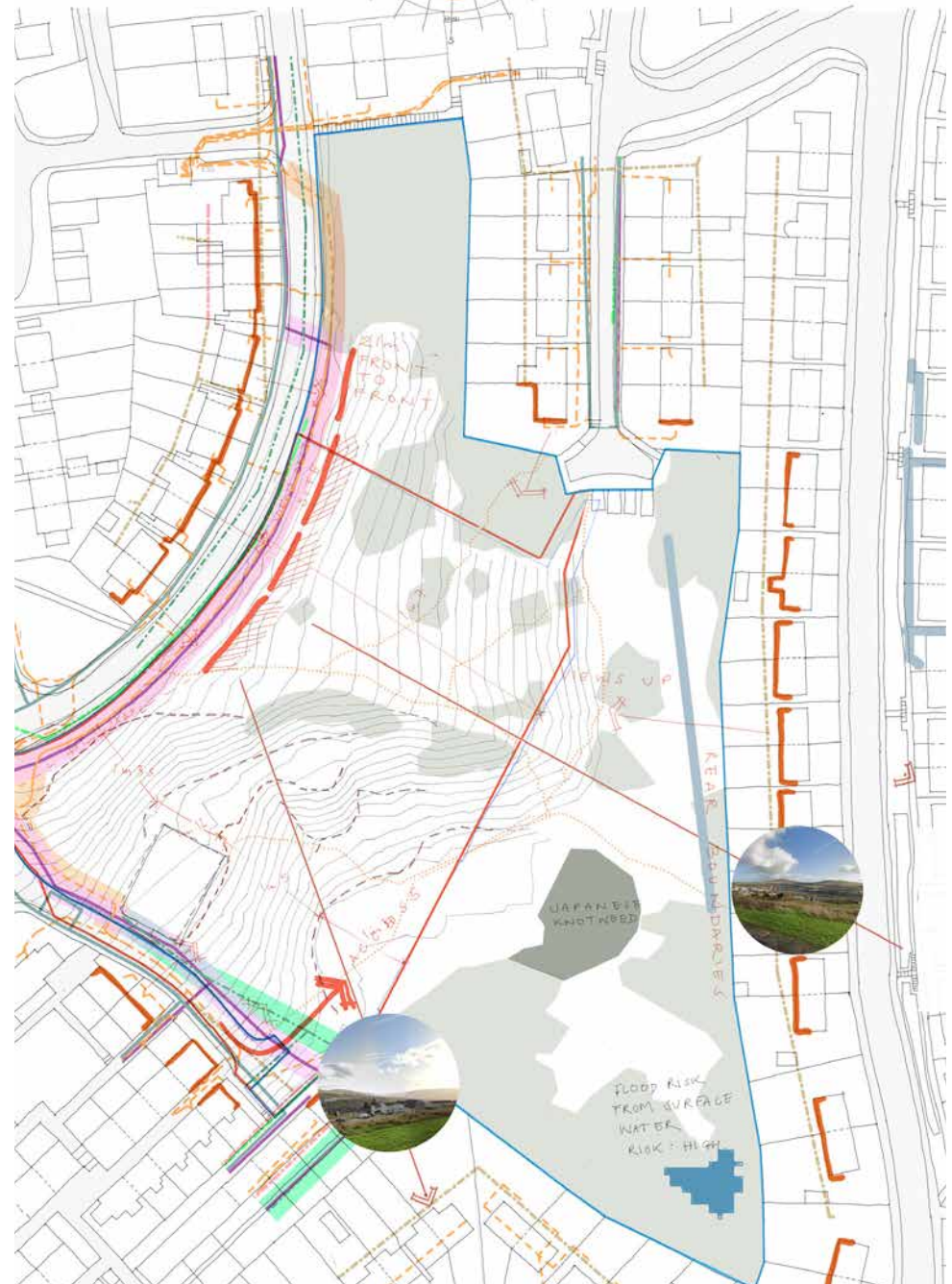
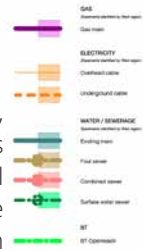
Climate: The LETI targets outline an appropriate building performance specification, requiring that projects deliver net zero operational carbon, do not burn fossil fuels and achieve a level of energy performance in-use that is in line with our national climate change targets. The specification stipulates levels of fabric performance that go considerably further than UK Building Regulations, alongside low carbon sources of heat such as electric heating. There is the opportunity to deliver low carbon homes which make living costs more affordable for residents and more sustainable.

Flood Risk: Due to the sloping nature of the site, the flood risk is very low across the development boundary area to the West of the site.

Orientation + Views: The excellent orientation, good solar access and long, dramatic views afforded by local topography mean that the site presents real opportunities, in addition to posing considerable challenges.

Amenities: The proposed site sits within an established residential area with local amenities such as schools, local shops, churches, supermarkets etc.

Existing Land Use: The site itself can be loosely described as amenity space, but has few features and the slope makes it difficult to maintain. It is really only used by dog walkers and as an occasional shortcut. It is located between three communities and does not clearly 'belong' to any one of them.



2.16 SWOT Analysis –Weaknesses and Threats

Flora + Fauna: The presence of Japanese knotweed on the site ownership boundary will need to be managed and dealt with appropriately, although these areas lie outside of the development boundary.

Services: Although the site is predominantly free of service constraints, further investigations are needed to determine the exact easements and positions of the gas and electricity underground services which run along the Western edge of the site.

Crime Rates-Secure by Design: Merthyr Tydfil is facing a high crime challenge. The year 2023 recorded 7,297 incidents, leading to a crime rate of 124.02 incidents per 1,000 residents in its population of 58,839, marking a 15.34% increase over the previous year.

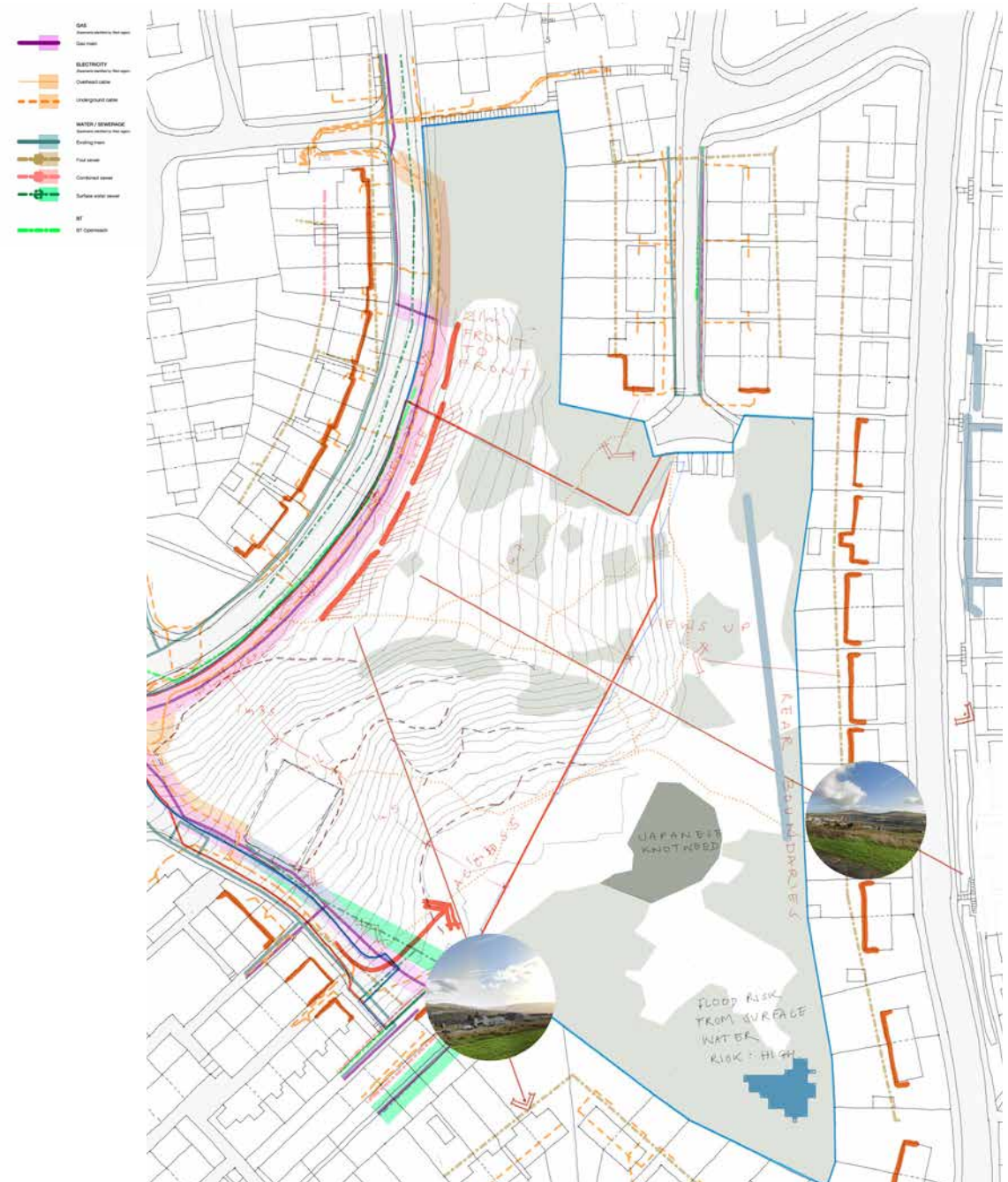
Climate: Wales is dominated by 'severe' climatic conditions. Located where the landscape climbs out of the valleys towards the Brecon Beacons, Merthyr feels the full force of unbroken south-westerly Atlantic winds on a regular basis. The exposed climate is a defining characteristic of Merthyr, and a key challenge. As global warming continues to intensify, extremes of weather will be more common. Elevated levels of fabric performance are likely to be needed.

Topography: By its very nature and location at the head of the Taff valley, topography is a key challenge for development in Merthyr. The site is steep sloping, which make access difficult and construction expensive.

Access: Marshall Terrace terminates at the northern boundary of the park. The southerly edge of site is constrained by the access road into the Hillcrest estate. While this is an adopted road, its gradient (1:6) makes it difficult to negotiate.

Accessibility + Inclusivity:

Due to the steeply sloping nature of the site, accessibility due to level changes will need to be carefully considered to aid with peoples movement across the site. Some areas may not be wheelchair accessible.



Section 3: Concept Design

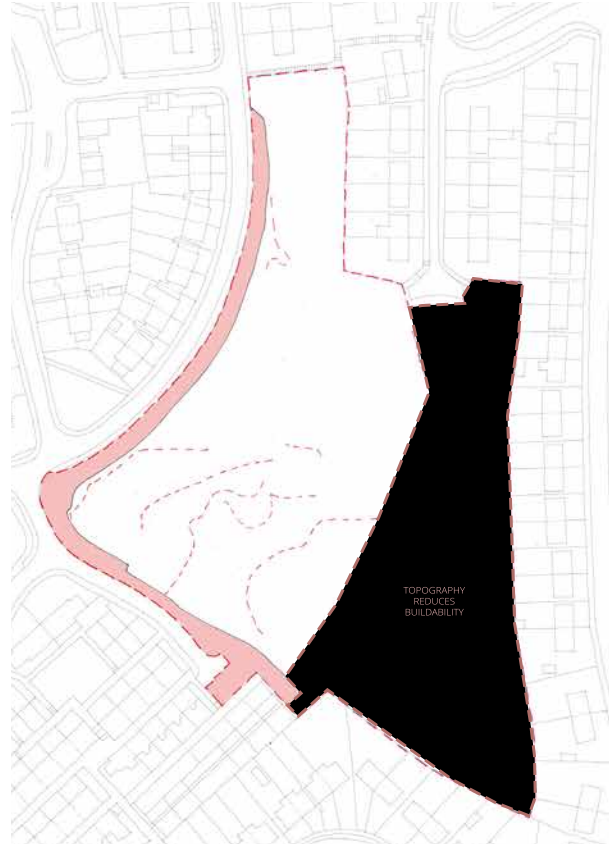
This section outlines how the site constraints and opportunities have influenced the proposed designs for the site, how we draw upon our knowledge of the best examples of residential development and demonstrate the early testing of ideas on the site.

3.1 Design Development

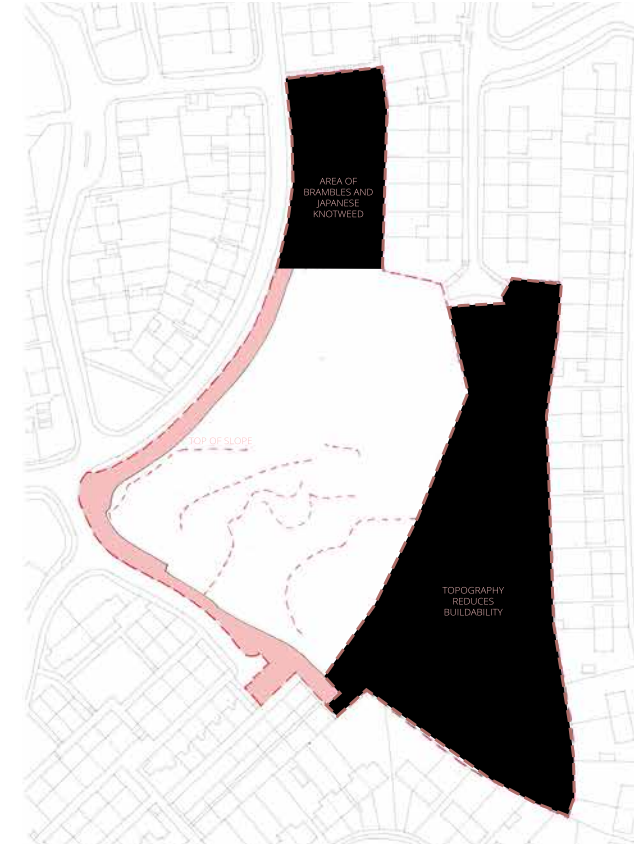


As identified in key site constraints, services and associated easements which pushes into the southern and western boundaries.

Also, key to the site strategy is the topographical constraints.

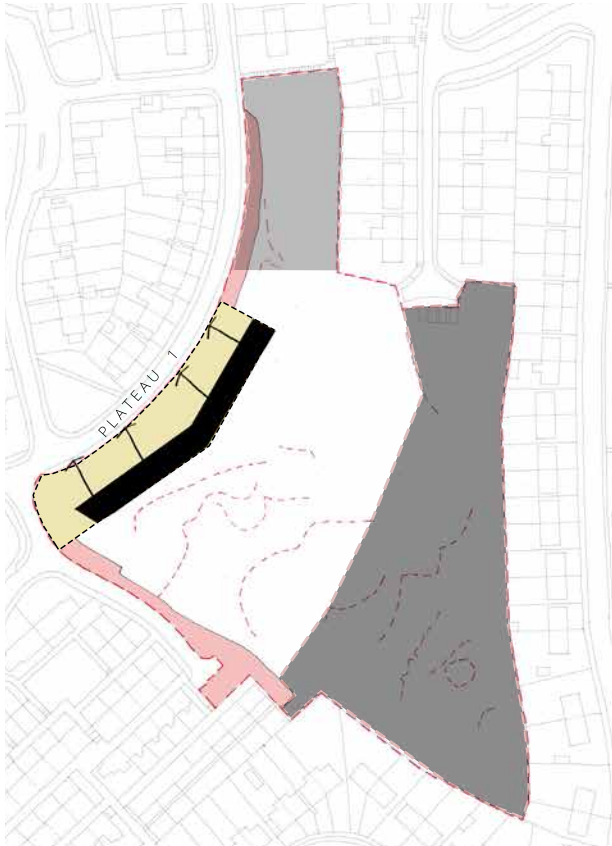


Conclusions from the site analysis means there is no need to sprawl blocks across the site which would occur expense, carbon and existing green space. This is why the built form will occupy part of the site, the part that gains the most efficient layout.

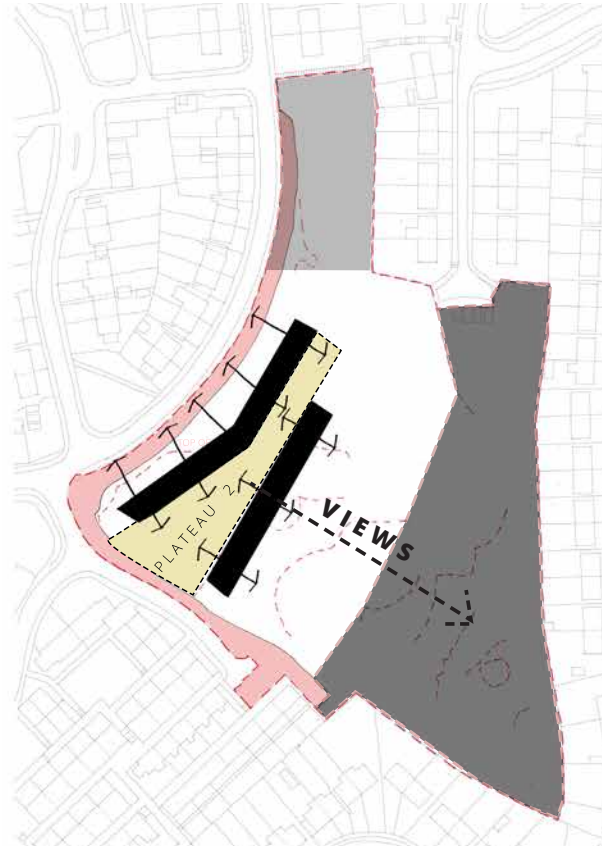


The ambition to retain a significant proportion of the site for ecology and amenity benefit as well as access, topography and overlooking are all factors which have further reduced the developable area of the site.

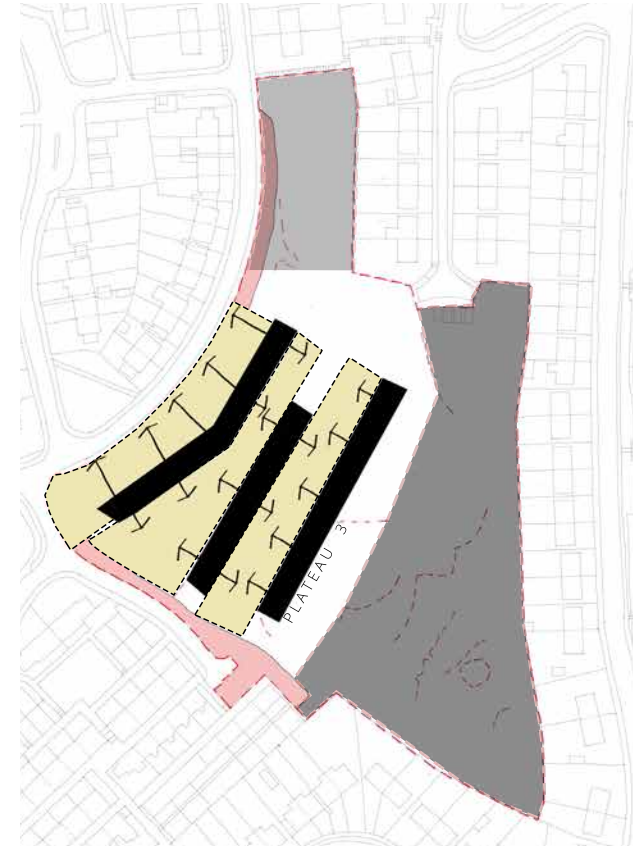
3.2 Design Development



At the 'top' of the site the building blocks follow the western boundary, mirroring the existing houses and forming 'rows of houses' staying outside the designated 21m to avoid any overlooking impact and avoiding the below ground service constraints.

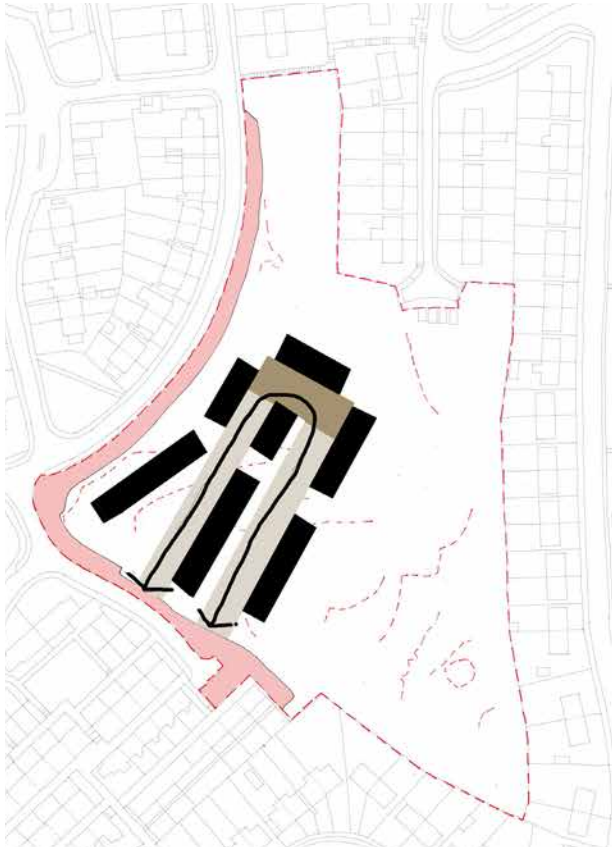


A second set of homes is added towards the centre of the developable area, again following the contours. The spaces between the terraces creates the opportunities for plateaus which can become shared landscape spaces. Making use of the falling topography and the stepping of the development maximises the views for each dwelling.



A third row of new homes then forms the south eastern extent of our development. The building blocks follows the loop road around, stepping where necessary and gaining 'lower ground floor access' to units where possible utilising the slope in the hillside which avoids retaining elements forming the edge to public realm.

3.3 Design Development



Using the existing point of access into the site from Hillcrest into the existing car park for vehicle access minimises highly engineered solutions, working with existing site levels. Creating a loop road which follows the contours and avoids constructing multiple turning zones.



Continuing an existing desire line, our building blocks are separated to provide permeability through the site and also create a central pedestrian connection to the parkland below.

Corners of blocks, where built forms would have met are pulled apart to provide 'views in/views out' of the site.



Introducing landscape features and further pedestrian connections, culminating in a destination place in the existing parkland to the south-east.

Blocks along the western edge are made more permeable with house type solutions retaining valuable far-reaching views.

3.4 Design Development

Community Connectivity

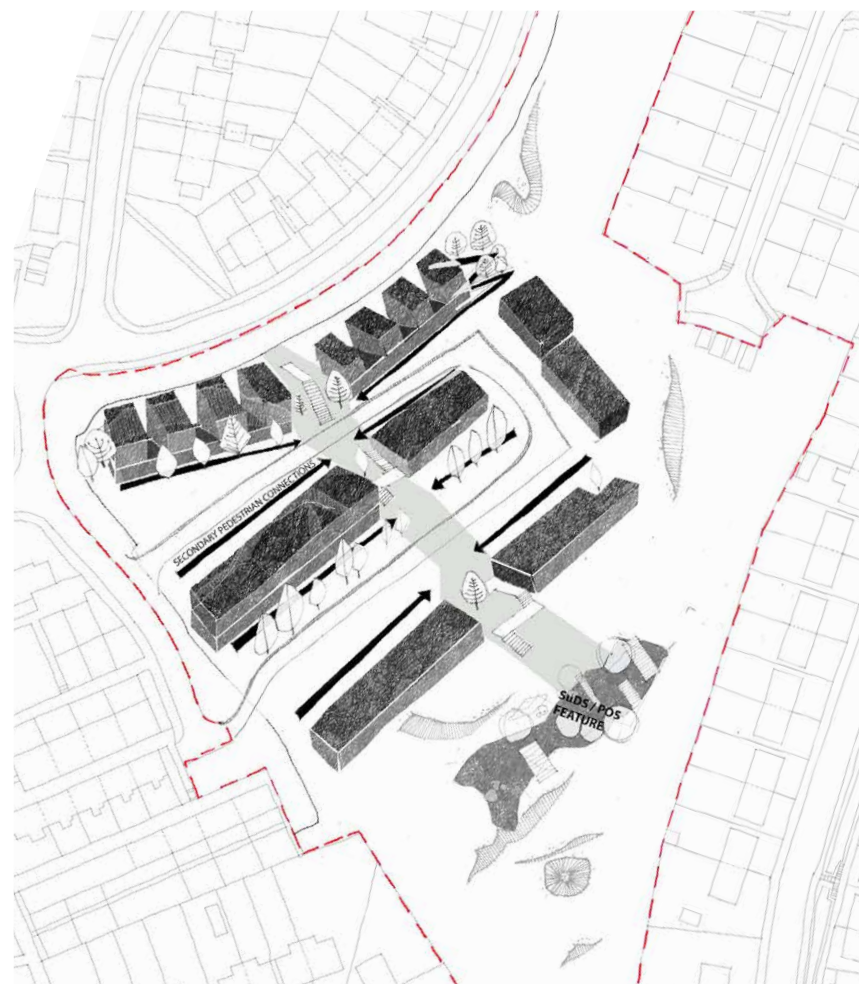
The site currently exists as a poorly utilised island of 'green' within the surrounding housing. Our design aims to significantly improve connectivity across the site and to the surrounding local communities through a series of new routes. These will be established along existing informal desire lines across the site and provide more formalised connections with suitable presence and overlooking. Routes should be safe, lit wherever possible and overlooked all in accordance with SBD recommendations, whilst also working with the ecological constraints of the site in order to avoid disruption to habitats.

Connection to Landscape and the Public Realm

Positive and active frontages will overlook the landscaped looping circulation space and central SuDS / amenity space to promote community ownership and use, and ensure as much safety and security as possible. Pedestrian footpath connections will traverse the sloping landscaped areas as part of the overarching connectivity strategy. A formalised landscape walking path for the wider community will link from Hillcrest up to Marshall Crescent.

Building Blocks

Form factor can dramatically affect the heat losses of a building and therefore the building fabric requirement to achieve AECB Carbonlite. As such, the design groups dwellings into terraces of relatively narrow frontage, deep plan homes, balanced against the requirements for natural light, with the only detached homes making the most of the building footprint by having 3 levels, with additional flats accommodated under 4 of the homes.





The above axonometric describes the proposal during the design development stage highlighting the approach to building form and orientation and the series of green spaces and new public realm that unite the scheme and make a virtue of the sloping site. A pedestrian route runs from top of site (Mitchell Crescent) to the bottom, where it terminates in views into the parkland below. SUDS also follows this route, providing a series of water features that animate key shared spaces.

Vehicles move along the slope, alongside accessible walking routes. The pedestrian is prioritised. Streets are lined with houses, planting and sustainable drainage that supports ecology. The development is punctuated with a variety of shared gardens, through the middle in a series of small gardens with SuDS as a key character feature and the large and relatively flat green space for informal gathering and recreation.

3.5 Precedents: Landscaping and placemaking: SuDS and ecological corridor

The accompanying images describe the range of experiences that the ecological corridor running through the centre of the site can offer and how our integrated approach to SuDS begins at the building edge. Running from Mitchell Crescent at the top of the site a series of shared spaces run through the site, following the flow of water down slope.

The movement of water in these spaces will provide animation to these spaces, ecological diversity and creating opportunities for play and learning to take place.



5.5 Precedents: Landscaping and placemaking: Streets for people not cars, hard spaces for play



Above: the Marmalade Lane co-housing development in Cambridge by MOLE architects (2018) provides a useful precedent for the 'plaza' that sits at the centrepiece of the highways loop through the site. High quality hard surfaces and non-intrusive boundaries between shared and private territories create an environment where the pedestrian has priority and where gathering with neighbours and children playing outside takes precedence.



3.5 Precedents: Consideration of boundaries



Raised planted beds and low bricks walls.



Raised kerbs and timber posts/ knee rails.



Metal railings & planting with integrated heat pump or bin storage.



Brick walls & metal fencing with planting.



Low brick walls with seating and slatted timber separators.

A variety of boundary options will need to be adopted across the scheme to ensure we successfully achieve the level of social interaction around our homes which we want to create which comes as both a benefit and challenge of dealing with the sloping topography in the innovative way we are proposing.

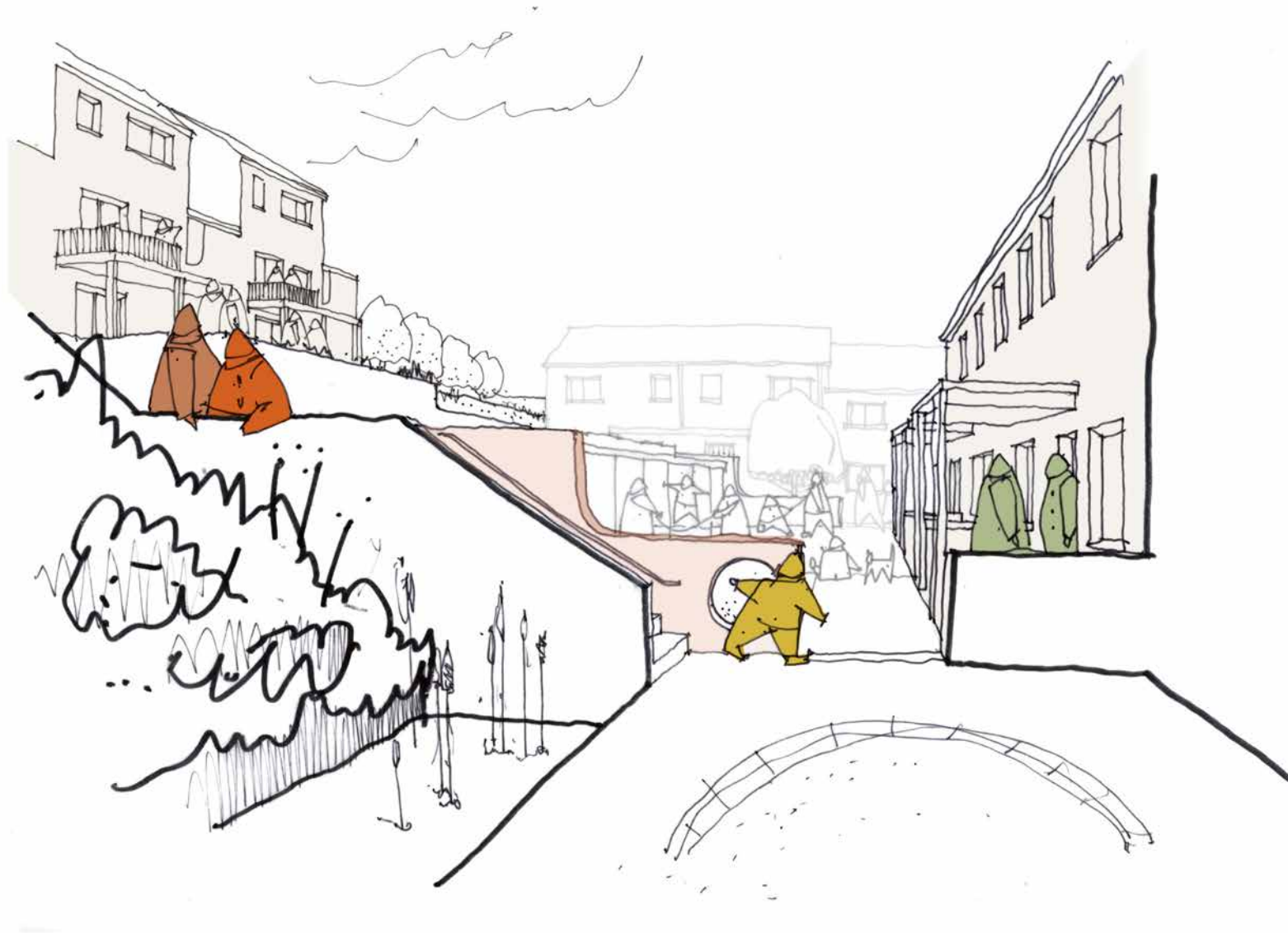
Furthermore, high quality stores and enclosures will be required to deal with bins, bike and plant storage where traditional back garden solutions are not available through our promotion of more public amenity and less private amenity.

The image, right, was used at the concept stage to describe to the design team (especially contributing ecology, landscape design and SuDS design) the approach to natural play, SuDS as valuable amenity and the quality of the public realm.



3.6 Exploring Public Realm

The adjacent image shows an early exploration in the creation of sociable frontages to our new home, opening out on to safe, car free play spaces at the centre of the site with excellent overlooking from the surrounding homes. SuDS features animate the public realm.



3.6 Exploring Public Realm

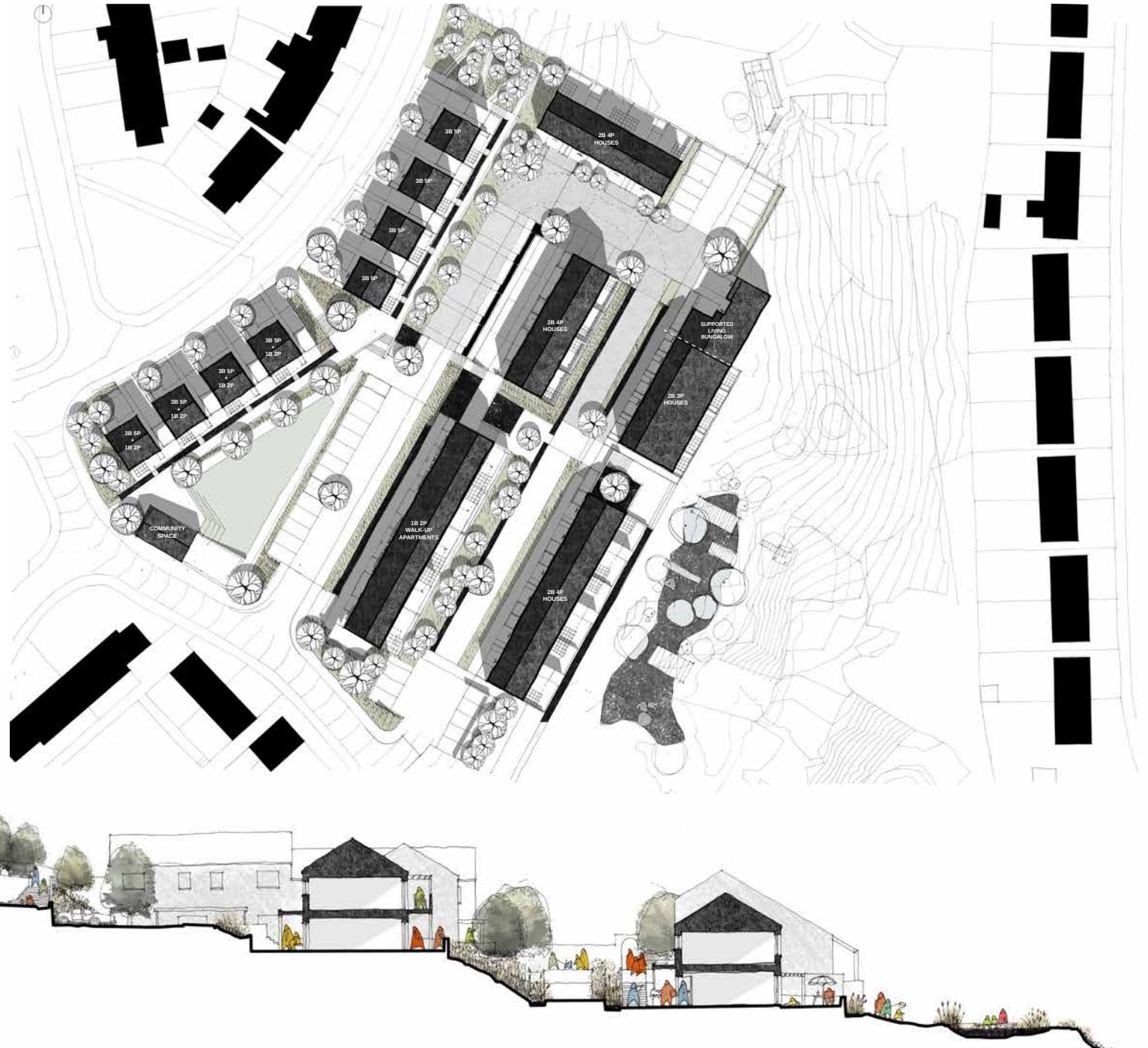
The adjacent image shows an early exploration of the shared surface play courtyard at the centre of the scheme as the vehicle loop passes through. Homes frame the space with street trees, benches and areas of planting discouraging inappropriate parking of vehicles and promoting social interaction.



3.7 Framework Plan

The concept design ultimately led to the creation of the Framework Plan at the end of Stage 2.

Exploring this scheme in section concurrently with plan development is vital to ensure its success. At the bottom of the page is the section through our scheme running from Marshall Crescent to the north west down to where the development meets the landscape to the south east.



Section 4: Sustainability Strategy

4.0 Sustainable development goals

Informing the design process

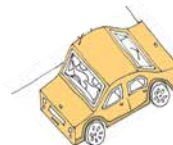
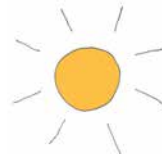
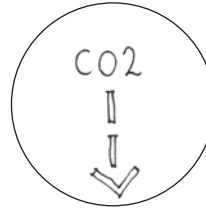
The sustainable development goals bring with them additional design challenges and constraints on both the site layout and building design. The principal considerations at the concept stage, which impact site layout are:

Building orientation:

A balance must be struck between optimal solar orientation (which lends itself to uniform south facing terraces), the physical constraints of the site and the requirements for an articulated townscape that promotes neighbourliness and social interaction. When developing the overheating strategy, consideration must also be given to the fenestration patterns and their orientation, and the impact of shading devices on the overall design and place-making qualities.

Building form and footprint:

The form factor of buildings be minimised to reduce thermal losses. The required building fabric is also highly insulated, which leads to greater wall thickness. This can lead to greater overall building footprints, which can impact on the overall site layout. One strategy to accommodate both of these factors is to create terraced homes which reduced the external envelope and overall footprint. Shared elements of the building also reduce the overall embodied carbon, helping towards net zero aspirations. This must be balanced with the site specific demands of providing views through the site and permeability which serves the community connectivity.



4.1 AECB Assessment

Industry Standards

This scheme is aiming to meet AECB CarbonLite™ Standards (<40kWh/m2a heating demand) as an alternative means of meeting Requirement 1(d) within WDQR 2021, which states that new homes must achieve EPC A (SAP92 Energy Efficiency Rating or greater) through minimum fabric standards set out in Appendix E – Elemental specification for the DER/TER of Approved Document L1 or alternatively through independent certification in accordance with the Energy Hierarchy for Planning in Welsh Government's Planning Policy Wales.

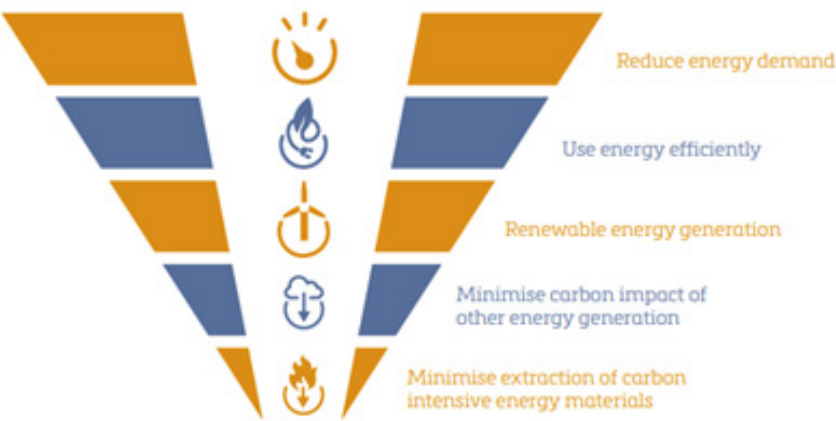
AECB CarbonLite™ New-Build Standard

The table below outlines the key building performance criteria required of the AECB CarbonLite™ Standards:

Headline certification criteria - updated Sept 2023			
Criteria	Carbonlite Retrofit Step-by-step	Carbonlite Retrofit	Carbonlite New Build
Delivered space heating and cooling (kWh/m2/a)	report result	≤ 50 kWh/m².a (≤ 100 kWh/m².a with certifier approved exemption)	≤ 40 kWh/m².a
EITHER Primary Energy (PE, varies) OR Renewable (PER) (kWh/m2/annum)	report result report result	report result report result	≤ 85 kWh/m².a ≤ 75 kWh/m².a
Ensure ventilation	Continuous MEV or MVHR must be installed : follow PAS 2035 Annex C as required by Part F of the Building Regulations.		
Airtightness (q50)	≤5.0 m³/m².h	≤2.0 m³/m².h	≤ 1.5 m³/m².h
Thermal Bridges	N/A. If some additional & significant fabric measures are being replaced or installed, certifiers will advise whether full Retrofit Standard requirements are applicable.	Assumed to be less than 0.01 W/mK, else accounted for in PHPP or for retrofits a default heat loss factor may be used.	Assumed to be less than 0.01 W/mK, else accounted for in PHPP
Surface Condensation (fRs) assessed		fRs to meet criteria in PHPP, or 0.75 (as Building Regulations/ PAS2035), or local standards - whichever is more onerous.	fRs to meet criteria in PHPP, or 0.75 (as Building Regulations/ PAS2035), or local standards - whichever is more onerous.
Heating System	Change existing fossil fuel (or direct electric) heating system to a heat pump.	Existing heating systems may be retained, but a practical plan to allow for future low carbon heating supply must be in place.	Install a non fossil fuel system or connect to a low carbon district heating network.
Thermal Comfort	PHPP modelled overheating risk: <10% Acceptable (Guidance: <5% Good practice or <3% Best practice)		
Running cost comparison	Must be same/lower running costs than base case **	-	-
Where a heat pump is installed			
Certifiers must liaise with the building owner and the MCS heating system designer in order to ensure that:			
Maximum flow temperature for the designed and installed heating system (space heating only)	no greater than 50°C : Best Practice - heating system is designed and installed for flow temp <45°C		
Energy Model using PHPP, showing:			
	A. Pre-retrofit Baseline B. Step 1 achieved C. Retrofit scenario showing how Full Retrofit could be achieved (≤ 50 - 100 kWh/m2.a)	Retrofit Standard achieved (≤ 50kWh/m².a or ≤100 kWh/m².a with certifier approved exemption)	Building Standard achieved

It is worth noting that, unlike SAP assessments or PassivHaus Plus / Premium standards, there is no requirement for PV or energy generation on site, however the heating system must be powered by non-fossil fuel systems or be connected to a low carbon district heating network.

Figure 10: The Energy Hierarchy for Planning



The AECB CarbonLite™ Standards allow for improved comfort, health, energy and carbon performance; they engage and upskill clients, design and construction professionals to make better – and more sustainable - buildings.

As part of the design development of the project a report has been prepared by Pentan Architects for Merthyr Tydfil Housing Association (MTHA) as part of their energy efficiency analysis for the development of the land at Haydn Terrace, undertaken at RIBA Stage 2-3 prior to planning submission.

4.2 Key Results

Each building assessed at this stage passes the AECB minimum requirements at RIBA Stage 2-3 with heating demand <40 kWh/m² with all of our new homes predicted to have 0% chance of overheating. The table, overleaf, below shows the results from the sample 2B4P terrace and the limiting values of each standard.

In summary, this approach by MTHA and the design team promotes high quality, high performance building fabric with reduced reliance on 'add-on' technology to deliver homes that are both affordable to heat (requiring very little heat input to deliver thermal comfort) and good for the planet with less use of 'hi-tech' solutions, such as PV panels and batteries which use valuable, finite and hard to obtain resources.

Section 5: Planning Policy

5.1 Planning policy framework

The planning policy context for the determination of this application is provided by national and local planning policy guidance. National guidance is set out within Future Wales, Planning Policy Wales, and the accompanying Technical Advice Notes.

Future Wales: The National Plan 2040

Future Wales is the Welsh Government's top-tier national development framework. The plan seeks to provide a strategy for addressing key national priorities through the planning system for the next two decades. The key priorities include sustaining and developing a vibrant economy, achieving decarbonisation and climate-resilience, developing strong ecosystems, and improving the health and well-being of our communities.

Planning Policy Wales

Future Wales: The National Plan 2040 and Planning Policy Wales – February 2024 (PPW)

The national planning policy context is acknowledged, but relevant policies are not listed here, in the interests of brevity.

The Adopted Merthyr Tydfil Replacement Local Development Plan 2016 – 2031

The Merthyr Tydfil Replacement Local Development Plan (LDP) 2016 - 2031 provides the local planning policy framework for the area and was adopted by Council on 29th January 2020. It is the basis for land use planning decisions in the County Borough, excluding Brecon Beacons National Park. The application site is listed as one of the site allocations (SW3.16), within the defined Primary Growth Area for Merthyr.

The LDP vision for the county borough is:

“To strengthen Merthyr Tydfil’s position as the regional centre for the Heads of the Valleys within the Cardiff Capital Region, to encourage a sustainable level of population growth and be a place to be proud of where:

- **People learn and develop skills to fulfil their ambitions;**
- **People live, work, have a safe, healthy and fulfilled life; and**
- **People visit, enjoy and return.”**

Relevant development management policies include:

- Policy SW1 Provision of Homes
- Policy SW2 Provision of Affordable Housing
- Policy SW3 Sustainability Distributing New Homes

- Policy SW 4 Settlement Boundaries
- Policy SW9 Planning Obligations
- Policy SW11 Sustainable Design and Placemaking
- Policy SW13 Protecting and Improving Local Community Facilities
- Policy CW1 Historic Environment
- Policy EnW4 Environmental Protection
- Policy EnW5 Landscape Protection

In light of the Replacement LDP being brought in in 2020, the LPAs Supplementary Planning Guidance is to be reviewed and updated in due course. In the meantime, existing SPGs are considered to be of some relevance.

Planning History & Engagement

According to the LPA website no planning history for the site exists.

It is understood that the site was previously used as a quarry with it now appearing as an informal open green area. Part of the site previously contained a formal play park which was removed in the last 15 years.

As noted in the section entitled Background above, the applicant has undertaken a range of presentations with both community stakeholders and certain departments of the Local Authority.

Following this the team then engaged with the Design Commission for Wales in order to receive an independent assessment of the work undertaken to date feedback on any areas which could be improved. The proposal was well received with the following key points noted;

- The idea of developing and testing housing and street typologies to address the specific context of sites in Merthyr is positive.
- The historical analysis undertaken needs to be complemented by urban design analysis of the neighbourhood.
- The local and wider connections to the surrounding area and hierarchy of spaces within the development need to be further developed.
- The design needs to be developed to achieve the objective of creating a neighbourhood characterised by intimacy, proximity and streets for people.
- Further design development is required for the ‘piazza’ communal area.

- How the houses define the public realm requires further development, particularly the corners and along the southern boundary.
- Further consideration is needed as to how the development will relate to the surrounding park.
- The design concept challenges standard requirements imposed on new development. Achieving the scheme's aspirations will require good design and negotiation with the Welsh Government, planning, highways and Secured by Design.
- The grain and form of the blocks should be explored further, with particular focus on the gables and existing street engagement.

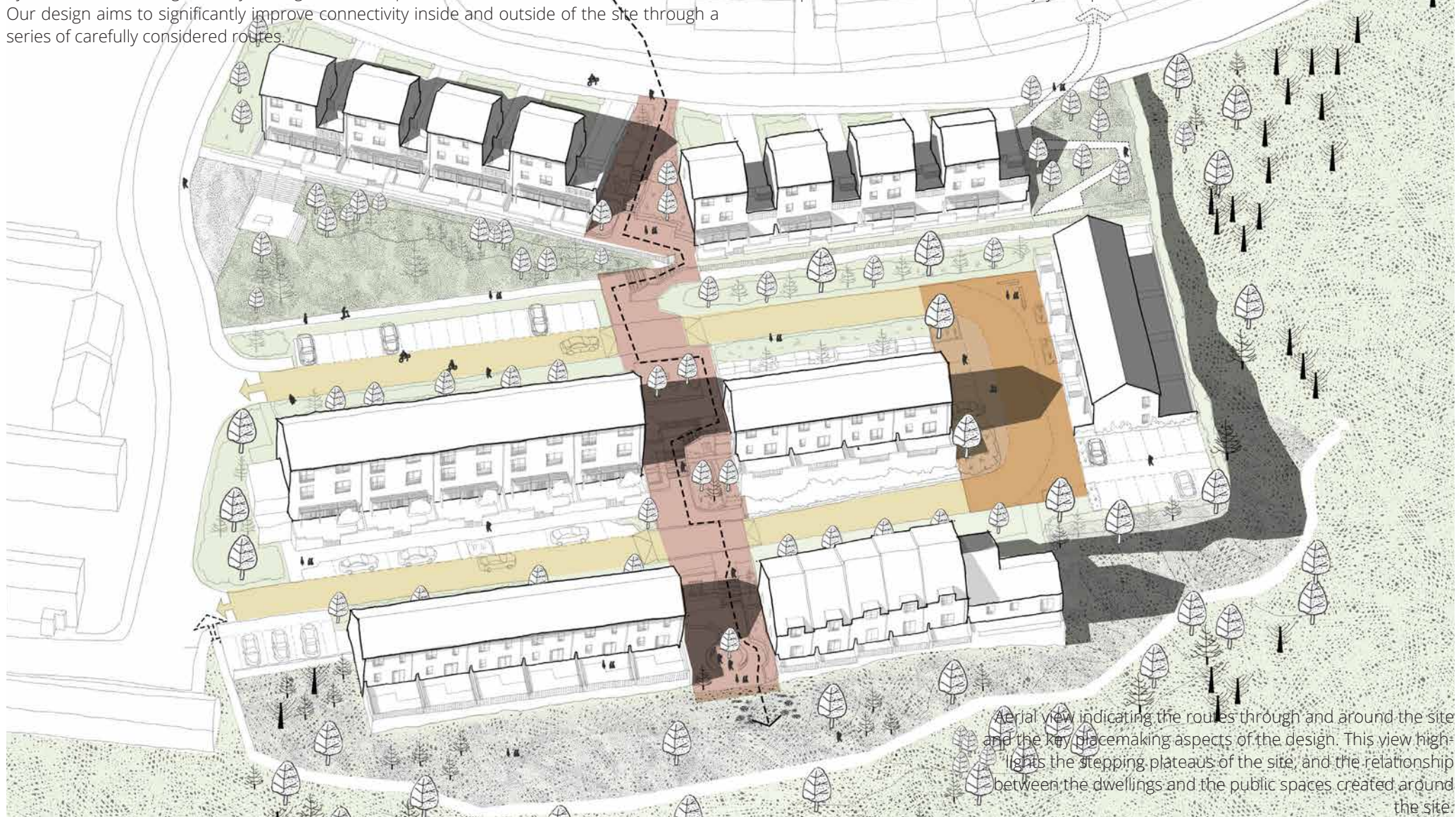
This enquiry submission follows on from the engagement processes noted above and marks the start of the more formal engagement with the LPA which itself will then lead into the pre-application consultation with the community and then formal submission of a full application.

Section 6: The Proposal

6.1 Character

The design provides a development that adheres to the principle of good placemaking and will result in the creation of contemporary affordable housing, sympathetic to the wider area and building on the principles of 'Merthyr Housing' established in the WSA-led research project. The proposed development will adhere to placemaking principles advocated by PPW and supported by the DCFW, whilst significantly adding to the local provision for affordable homes in the area. Our design aims to significantly improve connectivity inside and outside of the site through a series of carefully considered routes.

The steeply sloping ground offers opportunities for stepping amenity/play/SuDs spaces to act as valuable green infrastructure into the heart of the housing scheme. This allows meaningful views to trees and greenery for dwellings, enhanced ecology, informal and natural play, and edible landscapes by way of orchard planting, adding to the overall character of the development as a sustainable and enjoyable place to live.



Aerial view indicating the routes through and around the site and the key placemaking aspects of the design. This view highlights the stepping plateaus of the site, and the relationship between the dwellings and the public spaces created around the site.

6.2 Amount and Density

The development comprises of 47 new affordable houses, providing a mix of 1, 2, and 3 bedroom properties. The proposal also introduces new vehicular movement onto the site and significant improvements to the pedestrian network in the area.

Our new homes are designed to be compliant with the Welsh Government's 'Design Quality Requirements' relating to the provision of affordable housing. The mix of which has been led by MTHA assessment of local need. This mix will provide for a range of needs and family types from 1 bedroom walk-up apartments, wheelchair accessible ground floor apartments and specially designed bungalow accommodation as well as a significant number of affordable 2 and 3 bedroom family homes.

The density of the development, when considering the entire 'red-line' boundary would not be considered 'dense'. However, the design purposely aims to keep the built forms located as tightly to the existing community edge to the north and west where connections are most valuable and existing infrastructure is available. This ensures that a significant amount of green space is retained, much of which will be left as it is currently found, for the ecological benefit this brings.

6.3 Layout

The scheme is designed to actively respond to the site context, including the falling topography and the challenging boundary conditions.

The designs aim to work pragmatically responding to the existing, steeply sloping levels on the site, saving on the carbon involved in fully regrading the site or attempting to 'design-out' the slope. The result is a development largely contained to three separate plateaus with a connecting landscape / SuDS corridor providing separating elements, based on ecological enhancement, wellbeing, and play opportunities.

A pedestrian route runs from top of site (Mitchell Crescent) to the bottom, where it terminates in views into the parkland below. SuDS also follows this route, providing a series of water features that animate key shared spaces - as can be seen in the image, right. The pedestrian route down the centre of the site has at its formal 'end' the SuDS attenuation pond, where play will be encouraged to sit alongside biodiversity and perpendicular links can be made along informal paths to connect back to Hillcrest or Marshall Crescent. This does, in turn, provide a safe and secure opportunity for exercise and dog walking to continue on the site and better connects these two areas of community.



A simple, new 'loop' through the site for vehicles and pedestrians connects into the existing 'Hillcrest' at two points. The centre point of this loop is where our shared surface courtyard prioritises the pedestrian most heavily and actively promotes play and social interaction. With the pedestrian only route running through the centre of the site we are providing a more direct connection into the surrounding community - hopefully one that will be well used in preference to the use of the vehicle.

Streets are lined with houses, planting and sustainable drainage that supports ecology. The development is punctuated with a variety of shared gardens, the most significant of which are the shared surface courtyard (grey hatched area) and a triangular green play space - a reference back to the successful 'Triangle' of Pentrebach, now sadly demolished.

The sloping site means that each tier of housing enjoys the spectacular views and excellent orientation to the south-east. The breaks between homes arranged along Mitchell Crescent mean that the homes relate better to the existing housing, and preserve views and sun for the street.



6.4 Scale

The proposed development comprises a mix of predominantly two and three storey residential dwellings which make the most of the challenging topography and a single, single storey bungalow, helping to meet the needs for accessible accommodation in the area. The positioning of our massing responds to the general falling of the topography of the site, with the three storey elements sympathetically located as not to overshadow or dominate the views around the site. The 3 storey form of development has been employed to ensure that as the site falls away rapidly, there is a split section to the building blocks to provide active frontage on both sides, ensuring streets are well-overlooked and benefit from active frontage looking on to them.

A mix of 3 storey options include, a split level, 3 storey town house which provides larger family housing across three floor, a block of walk-up apartments where the split level 3 storey design allows for all apartments to have a front door on the street and lastly, a 2 bedroom, 4 person house sitting over a 1 bedroom, 2 person apartment. Sections through some of these can be seen in the image, right.

Dwellings are clustered in short terraces which seeks to maximise efficient building forms, also known as good form factor. This is a crucial consideration in designing for AECB - following Passivhaus principles. The general forms reflect the traditional Merthyr characteristics and aims to ground the development in the existing area through a sense of familiarity.

Although the site layout maximises the potential of the site, it is also not overcrowded, and ensures that the dwellings have just enough private amenity spaces as well as generous public open spaces which the community can take ownership of. The steeply sloping site actually works to the benefit of the scheme in this respect, with many of the homes enjoying views over their neighbours downslope.